

# United States Patent [19]

Yu et al.

5,883,128 **Patent Number:** [11]

**Date of Patent:** \*Mar. 16, 1999 [45]

# [54] AMPHOTERIC COMPOSITIONS AND POLYMERIC FORMS OF ALPHA HYDROXYACIDS, AND THEIR THERAPEUTIC USE

Inventors: Ruey J. Yu, Ambler; Eugene J. Van

Scott, Abington, both of Pa.

Assignee: Tristrata Technology Inc., Wilmington,

[\*] Notice: The term of this patent shall not extend

beyond the expiration date of Pat. No.

5,091,171.

[21] Appl. No.: 998,864

[22] Filed: Dec. 29, 1997

### Related U.S. Application Data

[63] Continuation of Ser. No. 135,841, Oct. 7, 1993, Pat. No. 5,702,688, which is a continuation of Ser. No. 840,149, Feb. 24, 1992, abandoned, which is a division of Ser. No. 393,749, Aug. 15, 1989, Pat. No. 5,091,171.

**U.S. Cl.** ...... **514/557**; 514/2; 514/19; 514/23; 514/114; 514/558; 514/532; 514/844;

514/941; 424/401

[58] **Field of Search** ...... 514/2, 12, 19, 514/23, 114, 349, 399, 419, 518, 561, 562, 532, 547, 567, 558, 844, 941; 424/59, 401; 549/274; 528/354, 357, 361; 525/408, 411,

#### [56] References Cited

# U.S. PATENT DOCUMENTS

2/1992 Yu et al. ...... 424/642 5.091.171 5,702,688 12/1997 Yu et al. ...... 424/59

Primary Examiner—José G. Dees Assistant Examiner—Michael A. Williamson

Attorney, Agent, or Firm-Foley & Lardner

### **ABSTRACT**

Preventive as wall as therapeutic treatment to alleviate cosmetic conditions and symptoms of dermatologic disorders with amphoteric compositions containing alpha hydroxyacids, alpha ketoacids, related compounds or polymeric forms of hydroxyacids is disclosed. The cosmetic conditions and the dermatologic disorders in which the amphoteric compositions and the polymeric compounds may be useful include dry skin, dandruff, acne, keratoses, psoriasis, eczema, pruritus, age spots, lentigines, melasmas, wrinkles, warts, blemished skin, hyperpigmented skin, kyperkeratotic skin, inflammatory dermatoses, skin changes associated with aging, and skin requiring cleansers.

### 16 Claims, No Drawings